

BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2012-383-WS

IN RE: Application of Carolina Water Service,)
Inc. and Utilities, Inc. for Approval of a Bulk)
Sewer Water Service Agreement between Carolina)
Water Service, Inc. and Utilities, Inc. and)
Georgetown County Water and Sewer District)
_____)

REBUTTAL TESTIMONY
OF
PATRICK FLYNN

Q. PLEASE STATE YOUR FULL NAME AND BUSINESS ADDRESS.

A. My name is Patrick C. Flynn. My business address is 200 Weathersfield Avenue, Altamonte Springs, Florida 32714.

Q. ARE YOU THE SAME PATRICK C. FLYNN WHO SUBMITTED PRE-FILED DIRECT TESTIMONY IN THIS DOCKET?

A. Yes.

Q. WHAT IS THE PURPOSE OF FILING YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to refute portions of the prefilled direct testimony of Willie Morgan. Specifically, I want to address the following items:

- the probable impact of the proposed bulk sewer agreement on customers' sewer bills,
- the impact of capital improvements that have been made to date that reduced excess inflow and infiltration,
- the capital improvements to be completed by the end of 2013
- the impact of those improvements on customer bills,
- the historical flow pattern measured at the Whites Creek Wastewater Treatment

1 Plant (WWTP) and reported to the South Carolina Department of Health and
2 Environmental Control (DHEC) over the last 10 years,

- 3 • the regulatory obligations and constraints that dictate the need to reach agreement
4 with Georgetown County Water and Sewer District (Georgetown) for bulk sewer
5 service, and
- 6 • the impact on the financial and environmental impact that will occur if the bulk
7 sewer agreement is not approved.

8 **Q. HOW MUCH OF A MONTHLY INCREASE WILL OCCUR IF THE BULK SEWER**
9 **AGREEMENT IS APPROVED BY THE PUBLIC SERVICE COMMISSION?**

10 **A.** The proposed bulk sewer agreement will result in customers in the Whites Creek and
11 Lincolnshire subdivisions paying an average sewer bill of \$53.36 per month based on the
12 application of the existing Carolina Water sewer tariff to the calendar year 2012 flow data and
13 assuming Carolina Water makes no further improvements to the wastewater collection system.
14 Some months the bill will be higher, some months less depending on a number of factors including
15 the use of water saving plumbing fixtures in the home, changes in water use patterns, and
16 replacement of exterior piping with PVC materials. See attached Rebuttal Exhibit PCF-1.
17 Mr. Morgan testified that a customer's bill will exceed \$100 as a result of very wet weather during
18 the month of January 2013. Bills of this magnitude will not occur in the future because the
19 planned collection system improvements will cure deficiencies in the piping network so that high
20 flows do not occur as a result of subsequent wet weather periods. These improvements are
21 scheduled to be completed by the end of 2013.

22 **Q. HOW DOES THE TWO-TIERED RATE STRUCTURE IMPACT CUSTOMERS'**
23 **BILLS?**

24 **A.** The proposed agreement is predicated on the reservation of approximately 70,000 gallons per

1 day of treatment and disposal capacity by Carolina Water or approximately 2,100,000 gallons per
2 month of wastewater flow. In those months in which the flow averages less than 70,000 gpd,
3 Georgetown would apply its Tier I rate of \$1.99 per thousand gallons for all of the monthly
4 volume. If the monthly volume exceeds an average daily flow of 70,000 gpd in a month, the
5 volume in excess of 2,100,000 gallons would be billed at the Tier II rate of \$3.33 per thousand
6 gallons. Consequently, the optimum circumstance would be for each month's flow to be less than
7 70,000 gpd. Under that scenario, the customers' bill under the current Carolina Water rate tariff
8 would be an average of \$48.19. See Rebuttal Exhibit PCF-2.

9 **Q. WHAT HAS BEEN THE TREND OVER THE LAST 10 YEARS IN AVERAGE**
10 **DAILY FLOW TREATED AT THE WHITES CREEK WWTP?**

11 **A.** Carolina Water has been very successful in making improvements to the Whites Creek/
12 Lincolnshire collection system. A review of the historical record of treatment plant flow as
13 reported each month to DHEC bears this out. Over the last 10 years, the average daily flow has
14 decreased from an annual average of 148,000 gpd in 2003 to 81,000 gpd in 2012, a 45% decrease.
15 This significant reduction in flow correlates with the capital investment made by Carolina Water in
16 that time period. In particular, the last three years of flow data indicate a 40% drop since the end of
17 2008. See Rebuttal Exhibit PCF-3. This reflects the impact and benefit of capital improvements
18 completed by Carolina Water when we focused on the 10-inch and-12 inch collectors as
19 mentioned in Mr. Morgan's testimony to reduce of excess inflow and infiltration. At the same
20 time, Carolina Water recognizes there will be a continuing need to locate and fix deficiencies in
21 this collection system as is true for any system.

22 **Q. DOES CAROLINA WATER PLAN TO CONTINUE ITS EFFORTS TO REDUCE**
23 **EXCESS INFLOW AND INFILTRATION?**

24 **A.** Yes, Carolina Water has budgeted the expenditure of approximately \$900,000 in capital

1 improvements in the Whites Creek/Lincolnshire system by the end of 2013. This investment
2 reflects a) the construction of the interconnection of the collection system with Georgetown; b) the
3 decommissioning of the Whites Creek WWTP; and c) the completion of collection system
4 improvements. Approximately two thirds of the budgeted amount reflects the estimated cost of
5 collection system improvements that are designed to locate and cure system deficiencies that will
6 reduce the average daily flow below the target of 70,000 gpd.

7 **Q. IS CAROLINA WATER PREPARED TO MOVE SWIFTLY TO CONSTRUCT THE**
8 **PROPOSED INTERCONNECTION?**

9 **A.** Yes, Carolina Water has completed the design of the proposed interconnection in conformance
10 with Georgetown's specifications and details and made application to DHEC. On July 15, 2013,
11 DHEC issued a permit authorizing the construction of the interconnection between Carolina Water
12 and Georgetown's collection systems through a metered connection. See Rebuttal Exhibit PCF-4.
13 Carolina Water now intends to initiate the bidding process for the construction of the
14 interconnection as well as the bid process associated with the collection system improvements.

15 **Q. IN THE MEANTIME, HAS CAROLINA WATER OPERATED ITS WHITES CREEK**
16 **WWTP IN CONFORMANCE WITH ITS NPDES OPERATING PERMIT?**

17 **A.** Since Carolina Water completed interim improvements to the WWTP in mid-September 2012,
18 Carolina Water has been compliant with the WWTP's operating permit for the last nine months
19 with the exception of the Biological Oxygen Demand (BOD) results generated in February 2013
20 after a period of severe rain. The plant operator made appropriate adjustments to the treatment
21 process at that time resulting in a swift return to normal effluent quality. In spite of subsequent wet
22 weather that has blanketed much of South Carolina over the first half of this year, the Whites Creek
23 WWTP continues to operate properly.

24 **Q. IS THERE A HISTORY OF SANITARY SEWER OVERFLOWS IN THE**

COLLECTION SYSTEM AS MR. MORGAN TESTIFIED TO?

A. No. In spite of elevated flows that occur as a result of wet weather in the area, Carolina Water has not had to report any Sanitary Sewer Overflows (SSO's) from its collection system over the last ten years or more. As Carolina Water completes its collection system improvements over the next few months, peak day flows will be further reduced.

**Q. PLEASE ADDRESS MR. MORGAN'S TESTIMONY REGARDING THE
PURPORTED CAP ON SEWER FLOW OF 152,000 GPD.**

A. Mr. Morgan mischaracterizes the reference to 152,000 gallons per day of flow as identified under Section I.B.d of the agreement. In reality, that section of the agreement obligates Georgetown to accept a minimum of 152,000 gpd of wastewater flow into its collection system. Essentially, this is Georgetown's characterization of the instantaneous flow rate that its collection system can adequately and properly receive. This equates to an approximate average flow rate of 105 gallons per minute but with a peaking factor built into its design. Section I.B.d does not preclude Georgetown from accepting a greater amount of flow if required. In fact, Georgetown incorporated into its collection system design sufficient hydraulic capacity in its pipes and pumping equipment to receive the flow generated from Carolina Water's collection system at build out conditions.

Q. WHY DID GEORGETOWN SIZE ITS INFRASTRUCTURE IN THAT WAY?

A. As noted in my direct testimony, the Waccamaw Region Section 208 Water Quality Management Plan calls for Georgetown to be a regional provider of wastewater service in order to attain the stated goal of improving the impaired Sampit River by the elimination of point discharges into its tributaries. In conformance with the 208 Plan, Georgetown incorporated into its infrastructure design adequate hydraulic capacity to serve the Whites Creek/Lincolnshire system.

Q. WHY DID CAROLINA WATER RESERVE CAPACITY IN GEORGETOWN'S

1 **SYSTEM SUFFICIENT TO SERVE 300 HOMES?**

2 **A.** Currently, there are 274 dwelling units constructed within the service area out of a total of
3 300 single family lots. Georgetown specified in its negotiations with Carolina Water that the
4 agreement must encompass sufficient capacity to serve all of the parcels. In agreeing to this
5 stipulation, Carolina Water and its customers benefit by increasing the volume of wastewater that
6 will be billed at Tier I rates. Instead of Tier II rates being triggered by flows in excess of 64,000
7 gpd, the trigger point is 70,000 gpd.

8 **Q. WILL THE CUSTOMER AVOID A RATE INCREASE IF THE BULK SEWER**
9 **SERVICE AGREEMENT IS NOT APPROVED?**

10 **A.** No. According to the terms of Consent Order 2012-012-W issued by DHEC, Carolina Water
11 will initiate the design of an upgrade to the treatment plant sufficient to meet the permit limits
12 contained in its current operating permit, NPDES Permit No. SC0030732. It is anticipated that the
13 capital cost to complete this upgrade will be in the range of \$1 million, which is greater than the
14 budgeted amount of \$900,000 referenced above.

15 In addition, the annual operating costs associated with the upgraded treatment plant will be
16 substantially greater than the cost to operate the existing plant. There will be increased staffing
17 requirements, purchased power costs, monitoring expense, repair and maintenance costs plus other
18 expenditures that will substantially reduce any perceived cost savings compared to the net monthly
19 cost of bulk sewer service provided by Georgetown.

20 **Q. WHAT DOES CAROLINA WATER RECOMMEND BE DONE IN ORDER TO**
21 **MINIMIZE THE COST OF SEWER SERVICE?**

22 **A.** Consistent with the position taken by the ORS in Mr. Morgan's testimony, Carolina Water
23 supports the development of a plan, with review, approval and enforcement provided by DHEC in
24 conformance with Consent Order 2012-012-WS, as amended, that would identify specific areas of

1 Carolina Water's collection system requiring upgrading or repair to reduce excess inflow and
2 infiltration (I&I) within a reasonably short time period. This would address the concerns raised by
3 Mr. Morgan that wet weather conditions put the customers at risk of incurring elevated sewer bills
4 due to the pass through of excess I&I at Tier II rates. This approach would obligate Carolina Water
5 to complete its schedule of collection system improvements by a date certain and thus ensure the
6 Public Service Commission, ORS, and most importantly, our customers that excess I&I would be
7 adequately addressed. To the extent that Georgetown is willing to be a conduit for low interest loan
8 funds that may be made available by DHEC to expand the scope of the improvements beyond that
9 which is within the control of Carolina Water, the customers would be afforded the opportunity to
10 replace deficient exterior sewer pipe with very little out-of-pocket cost and thus optimize the I&I
11 reduction effort. By doing so, the capital investment and annual operating expenses associated
12 with an expanded and upgraded WWTP would be avoided.

13 **Q. WHAT IS YOUR RECOMMENDATION TO THIS COMMISSION CONCERNING**
14 **THE BULK SEWER SERVICE AGREEMENT WITH GEORGETOWN?**

15 **A.** I urge the Commission to grant Carolina Water's Application in this docket and approve the
16 bulk sewer service agreement with Georgetown. The bulk sewer service agreement with
17 Georgetown is in the public interest and will benefit Carolina Water's Whites Creek and
18 Lincolnshire customers and the environment.

19 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 **A.** Yes it does.